

1.0 Purpose of Refuge Proposal

The U.S. Fish and Wildlife Service is proposing to establish the Little Darby National Wildlife Refuge in Madison and Union counties in south central Ohio to restore, preserve, enhance and protect the biodiversity of the upper Little Darby Creek Watershed and to benefit the Darby Creek Watershed as a whole. This chapter describes:

- Purpose of and need for a national wildlife refuge;
- Trust resources the Service is responsible for;
- Threats facing the Little Darby Creek Watershed;
- Role of agriculture in the watershed;
- Proposed action and the history of the project;
- Goals of the proposed refuge;
- Scoping and public involvement activities;
- Laws guiding preparation of an environmental assessment and Federal land acquisition.



Although predominately rural currently, the human population is expanding into the area, and urban-related development is a serious threat to both agriculture and the natural systems in the Little Darby Creek Watershed. Opportunities for habitat restoration will dwindle in coming years as land becomes scarce and expensive. Breeding Bird Surveys indicate a decline in nongame grassland species as well as wetland-dependent bird species, and restoration of habitat is vital to reversing that decline. Habitat protection and

restoration is also important to preserving aquatic species; several state and federally-listed endangered and threatened species occur in the Little Darby Creek Watershed.

1.1 Introduction

This Draft Environmental Impact Statement (EIS) is part of the U.S. Fish and Wildlife Service's (Service) planning process for the proposed Little Darby National Wildlife Refuge. A national wildlife refuge was proposed by the Service as an effort to restore and preserve habitat and wildlife within a unique warm water watershed located in Madison and Union counties in south central Ohio. In this Environmental Impact Statement, the Service considers five alternatives – four "Action" alternatives and one "No Action" alternative – and the biological and socioeconomic impacts that might be expected from each alternative. The general area of the proposed refuge is shown in Figure 1 on page 2.

Figure 1: Project Area and Vicinity

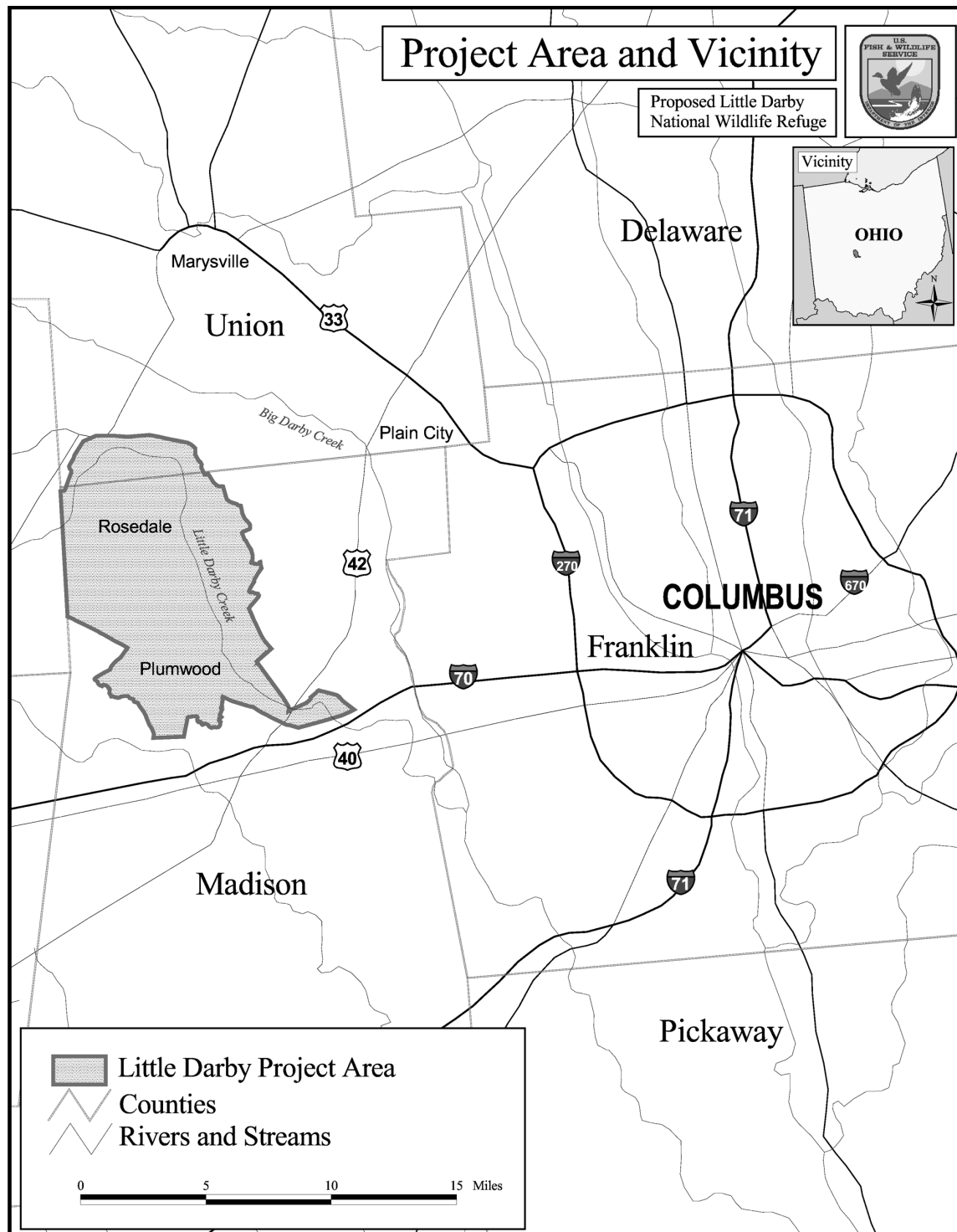
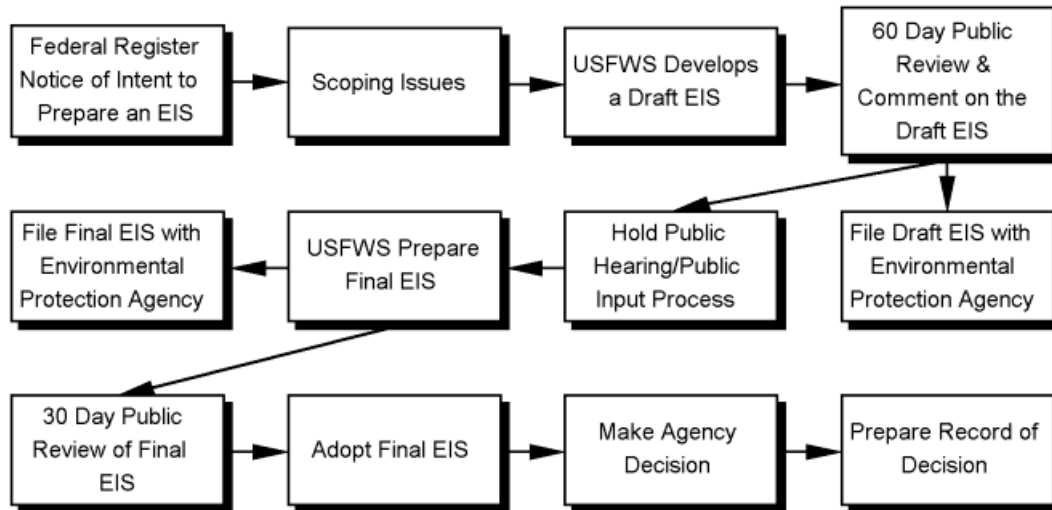


Figure 2: Environmental Impact Statement Process



The Service recognized the natural resource values of the Big Darby Creek Watershed, including the Little Darby Creek subwatershed, in 1990 with its Regional Wetlands Concept Plan. Consideration of a project in the Little Darby Creek Watershed began in 1997 and formal public involvement began in 1998.

The Service released a Draft Environmental Assessment for this project in November 1999. Approximately 800 comments were received from the public during a 60-day comment period that followed release of the draft document. Rather than finalizing the Environmental Assessment, the Service's Regional Director decided to complete an Environmental Impact Statement. In the spirit of full disclosure, the Service provided libraries in the project area with bound copies of the comments received regarding the Draft Environmental Assessment and also posted those comments on the Region 3 web site. (<http://www.fws.gov/r3pao/planning/index.htm>)

Information and issues gathered as part of the Environmental Assessment has been incorporated in this Environmental Impact Statement.

The refuge would only include land the Service owns.

Following a 60-day public comment period, the Service will prepare a Final Environmental Impact Statement. That document will form the basis for the Service's decision of whether to proceed with one of the five alternatives proposed in this Environmental Impact Statement. If establishment of the refuge boundary is approved, the Service will seek funds to acquire lands from willing sellers within the authorized area. The refuge would be formally established when the first tract of land is acquired. The refuge would only include land the Service owns. The Environmental Impact Statement process is illustrated in Figure 2.

1.1.1 U.S. Fish and Wildlife Service Background

The mission of the U.S. Fish and Wildlife Service is to work with others to conserve, protect and enhance fish, wildlife and plants and their habitats for the continuing benefit of the American people. The Service is the primary Federal agency responsible for conserving, protecting, and enhancing America's fish and

wildlife resources and their habitats. It shares this responsibility with other Federal, state, tribal, local, and private entities. However, as previously noted, the Service has specific trustee responsibility for migratory birds, endangered species, inter-jurisdictional fish, certain marine mammals, and lands and waters administered for the management and protection of these and other resources. The mission of the National Wildlife Refuge System is to administer a national network of lands and waters for the conservation, management and, where appropriate, restoration of fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans. The broad goals of the National Wildlife Refuge System are to:

- Preserve, restore and enhance in their natural ecosystems (when practical) all species of animals and plants that are endangered or threatened with becoming endangered;
- Perpetuate the migratory bird resource;
- Preserve a natural diversity and abundance of fauna and flora on refuge lands; and
- Provide an understanding and appreciation of fish and wildlife ecology and humankind's role in its environment and to provide refuge visitors with high-quality, safe, wholesome, and enjoyable recreational experiences oriented toward wildlife to the extent that these activities are compatible with the purposes for which the refuge was established.

The Service employs approximately 7,500 people at facilities across the country, including a headquarters office in Washington, D.C., seven regional offices, and nearly 700 field units and installations. Among these are national fish hatcheries, ecological field offices, law enforcement offices, and national wildlife refuges.

1.2 Purpose

The purpose of this Environmental Impact Statement is to analyze the biological and socioeconomic impacts of various alternatives for preserving and restoring habitat within the Little Darby Creek Watershed. This analysis will determine the significance of these alternatives' impacts to the socioeconomic and biological environments.

The general purpose of the refuge would be "for the development, advancement, management, conservation, and protection of fish and wildlife resources" (Fish and Wildlife Act of 1956). More specifically, the Service's interests include:

- Preservation and restoration of federally-listed threatened and endangered species and migratory birds and their habitats in the Little Darby Creek Watershed.
- Ensuring that overall watershed biodiversity and Federal fish and wildlife trust resources are protected and enhanced.
- Providing opportunities for wildlife-dependent public uses that are consistent with preservation and restoration of the natural resources.

1.3 Need

The following needs are the basis for this project and the Alternatives development:

- The Ohio DNR, the National Park Service, and The Nature Conservancy have all recognized the Little Darby area as a unique natural area with the latter identifying it as one of the “Last Great Places” in the Western Hemisphere (see 1.4.2). In 1990, the Service’s Regional Wetlands Concept Plan recommended restoration and preservation of wetland habitat within the Darby Creek Watershed. Development is occurring in Madison and Union counties, Ohio, and areas are being converted from a rural landscape to an urban or fragmented rural landscape. There is a need to actively protect these remaining habitats, the water quality in the Little Darby Creek system, and to preserve blocks of habitat for restoration in order to benefit species of Federal interest.
- The Service is entrusted with the responsibility to protect federally-listed species and migratory birds and habitats critical to their survival. The Little Darby Watershed offers a unique opportunity to protect two federally-listed endangered species in the project area and another 10 species that are of special concern and are being monitored. Included among the species of special concern are five species of migratory birds.
- The habitat needed by many of these species, such as grassland-dependent birds and threatened and endangered species, has been eliminated or significantly reduced in size, or it is threatened with degradation. The Little Darby Watershed historically contained or still contains many of the habitats utilized by these species and there is a need to protect, enhance, and restore them as appropriate.
- The Service seeks to provide opportunities for wildlife-dependent public uses that are consistent with preservation and restoration of the natural resources. Currently there is only one national wildlife refuge in Ohio. Nationally, Ohio ranks 45th among all states in the total amount of Federal and State land. There is a need to provide for the public enjoyment of these rich natural resources consistent with their preservation and restoration.
- To maintain or restore healthy plant communities, wildlife populations, and aquatic systems, the overall abundance and diversity of these components must be maintained or restored. There is a need and an opportunity to restore the unique prairie and wetland habitats that occurred within the Little Darby Watershed and to enhance the rich biodiversity still found there.
- In order to protect water quality, there is a need to have a broader impact upon the watershed, beyond the fee title area, to protect additional land from urban development and associated pollution by preserving the current agricultural use of these areas and encouraging conservation practices that benefit the watershed.

1.4 Background Relevant to the Need for the Proposed Project

The information in this section provides additional information related to the need the Service perceives for this project.

1.4.1 Fish and Wildlife Service Trust Responsibilities

The Service has trustee responsibilities for migratory birds, endangered species, interjurisdictional fish, certain marine animals, and lands administered by the Service. In the area proposed as the Little Darby National Wildlife Refuge, Service trust resource responsibilities encompass interests in grassland, woodland and wetland and associated migratory birds, and threatened and endangered species.

Grassland bird species have shown steeper, more consistent, and geographically more widespread declines than any other group of North American birds (Knopf, 1994). Many grassland species in the U.S. are threatened or endangered (Samson and Knopf, 1994) and 82.6 to 99.9 percent declines have occurred in the historic tallgrass prairie range in 12 states and one Canadian province. In Ohio, declining trends in 10 common grassland bird species range from 30 to 84 percent (Swanson, 1996). Throughout the entire historic tallgrass prairie region, only 5 percent (Samson and Knopf, 1994) of the original tallgrass prairie remains for preservation consideration.

Breeding Bird Surveys for the Great Lakes-Big Rivers Region indicate that grassland-nesting nongame species such as the grasshopper sparrow (-5.5 percent annual decline), dickcissel (-3.6 percent), bobolink (-3.3 percent), Henslow's sparrow (-7.6 percent), vesper sparrow (-1.7 percent), savannah sparrow (-1.1 percent), lark sparrow (-2.7 percent), field sparrow (-3.0 percent), eastern meadowlark (-2.9 percent) and western meadowlark (-4.0 percent) have shown significant average annual declines since the mid-1960s. Numerous wetland-dependent species such as the least bittern have shown similar declines.

Of the 25 top ranked nongame migratory birds listed by the Ohio Partners in Flight as Species of Concern, 21 are associated with wetland and/or grassland habitats. Of those species scoring 3.0 and higher out of a possible 4.0 on the threats ranking, six are listed as waterfowl.

Several federally-listed endangered and threatened species occur in the Darby Creek watershed and the project area, including the Clubshell (mussel) and the Northern riffleshell (mussel). The federally-listed endangered Scioto madtom was historically present downstream from the project area. Service biologists believe that the Indiana bat may be found in the project area because there is adequate habitat for the species, however no recent records exist that confirm its presence. In addition, the following species are classified as being federally monitored (i.e., species of concern):

Birds

Cerulean Warbler (*Dendroica cerulea*)
Henslow's Sparrow (*Ammodramus henslowii*)
Loggerhead Shrike (*Lanius ludovicianus*)
Bald eagle (*Haliaeetus leucocephalus*)
Peregrine falcon (*Falco peregrinus*)

Plants

Tall larkspur (*Delphinium exaltatum*)

Fish

Eastern sand darter (*Etheostoma pellucidum*)

Spotted darter (*Etheostoma maculatum*)

Reptiles/amphibians

Hellbender (*Cryptobranchus alleganiensis alleganiensis*)

Kirtlands snake (*Clonophis kirtlandii*)

Mussels

Elktoe (*Alasmidonta marginata*)

Rayed bean (*Villosa fabalis*)

Rabbitsfoot (*Quadrula cylindrica*)

Salamander mussel (*Simpsonaias ambigua*)

Snuffbox (*Epioblasma triquetra*)

In addition, the Eastern massasauga and copperbelly watersnake are currently listed as Federal candidate and threatened species, respectively. The copperbelly watersnake may be present in the watershed.

The proposed refuge area supports 17 state-listed endangered animal species, seven of which are mussels or amphibians, and 10 bird species. Another two animal species are designated as threatened, both of which depend on aquatic or wetland habitat. There are three species of state-listed threatened and endangered plants, one of which is dependent on aquatic or wetland habitat. Collectively, 44 species are designated as being state-listed threatened or endangered throughout the watershed (Ohio Department of Natural Resources (ODNR), 1997). Another 35 species are identified as potentially threatened or of special interest in the state (see Appendix A). The presence of bobcat and muskellunge have been verified in the project area as well. (Flint, S. 2000)

There are an estimated 94 fish species in the Darby Creek System, including 15 hybrids (OEPA surveys, 1979-1998). In a 1996 survey, Dr. Tom Watters estimated that 35 species of mollusks (the most endangered class in the United States) are present in the Darby Creek System. Watters has reported that for its size, the Big Darby Creek Watershed has the greatest diversity of freshwater mussels in North America, and perhaps on earth.

The Service's published list of Fish and Wildlife Conservation Priorities for Region 3 identifies 160 species considered to be in greatest need of attention. Region 3 includes eight Midwestern states, including Ohio. A total of 38 species, or 24 percent of those listed as a conservation priority by the Service, would potentially be affected by the proposed project (Appendix G).

1.4.2 Threats to the Darby Creek Watershed

Urban-related development is a principal threat to both agriculture and natural systems in the Darby Creek watershed, including the project area. The human population is continually expanding in the Basin, introducing greater development pressures on undeveloped lands and making opportunities for effective habitat restoration and preservation in the future more scarce and more expensive.

As with so many areas in Ohio, the threat to wetland, terrestrial and near stream wildlife habitat in this area is already substantial. The result has been greatly reduced food and cover for migratory birds and other species.

Land use within the watershed and the project area has changed enormously from presettlement wetlands, prairies, and oak savannas to intensive agriculture and other economic development. The watershed and project area are currently undergoing a second generation of human-induced change from agricultural ecosystems to a more densely developed state identified elsewhere as “rurbanization.” Between 1982 and 1992, Ohio ranked third in the country in the number of acres of prime or unique farmland converted to urban land. This accounted for nearly 60 percent of all land developed in Ohio during the period (American Farmland Trust, 1997).

Housing developments and associated commercial establishments are potentially the strongest and longest lasting source of stress to the Big Darby and Little Darby creeks. The watershed contains eight small cities and is located near the City of Columbus. Development is taking place in a dispersed pattern throughout a large area (see Table 1 on the following page). The development process is governed by multiple local and State governmental organizations (27 townships and six counties). The municipal governments in this area are generally unprepared for the influx of new development, resulting in a large potential for environmental damage through urban nonpoint storm water runoff, increases in septic systems, and the demands that overburdened and new sewage treatment facilities will place on the local streams. In Madison County, a recent court decision upheld the annexation of a large tract of land by the Village of West Jefferson for future industrial development. Madison County had opposed the annexation. This site is near the southeast boundary of the proposed refuge. A real estate firm acquired another tract of between 800-900 acres located just outside of the northwest project boundary in Champaign County. The Village of Plain City, which is located northeast of the project area, has approved major new subdivisions extending southwest along U.S. 42.

Groundwater pollution potential is the greatest within the drainage corridors of the project area (ODNR, 1987). See Figure 3 on page 10. This is a significant concern affecting water quality because of the fact that groundwater augments flows in most of the drainages of the project area. To date, this condition has positively impacted the health of the aquatic ecosystem, however development could jeopardize water quality maintenance.

One of the assumptions in the 1994 Madison County Land Use Plan is that significant development pressures will result from the expansion of the Columbus Metropolitan area (Lockwood, Jones and Beals, 1994). The following results were cited in the Plan’s trend and analysis section:

- Madison County has shown steady growth in population over the last 40 years.
- Fifty-seven percent of Madison County’s labor force commutes to work outside of the County.
- Madison County does not have a centralized water distribution or waste water collection treatment and disposal system in its unincorporated areas.

Table 1: Summary of Residential Building Permits Issued *

	1994	1995	1996	1997	1998	1999	2000
City of Hilliard	nd	613	603	388	397	390	100 (April)
City of Dublin (1-3 family units)	nd	324	367	286	366	373	125 (May)
City of London	62	54	81	76	68	130	nd
Plain City	22	25	13	35	37	26	4 (May)
Jerome Township (Union County)	nd	nd	nd	12	24	53	27 (May)
Darby Township (Union County)	nd	nd	nd	4	8	5	2 (May)
Union Township (Union County)	nd	nd	nd	2	6	4	1 (May)
Jefferson Township (Madison County)	16	19	5	15	14	21	nd
Somerford Township (Madison County)	26	8	23	15	18	nd	nd
Pike Township (Madison County)	1	3	2	1	3	nd	nd
Monroe Township (Madison County)	13	15	9	14	5	nd	nd
Deer Creek (Madison County)	2	7	2	5	3	nd	nd
Darby Township (Madison County)	6	3	5	3	4	nd	nd
Canaan Township (Madison County)	14	17	16	21	17	nd	nd
Totals (not including Dublin and Hilliard)	162	151	156	203	207	239	Incomplete

Sources: City of Dublin, City of Hilliard; City of London; Madison County Auditor; Union County Engineer; June 2000

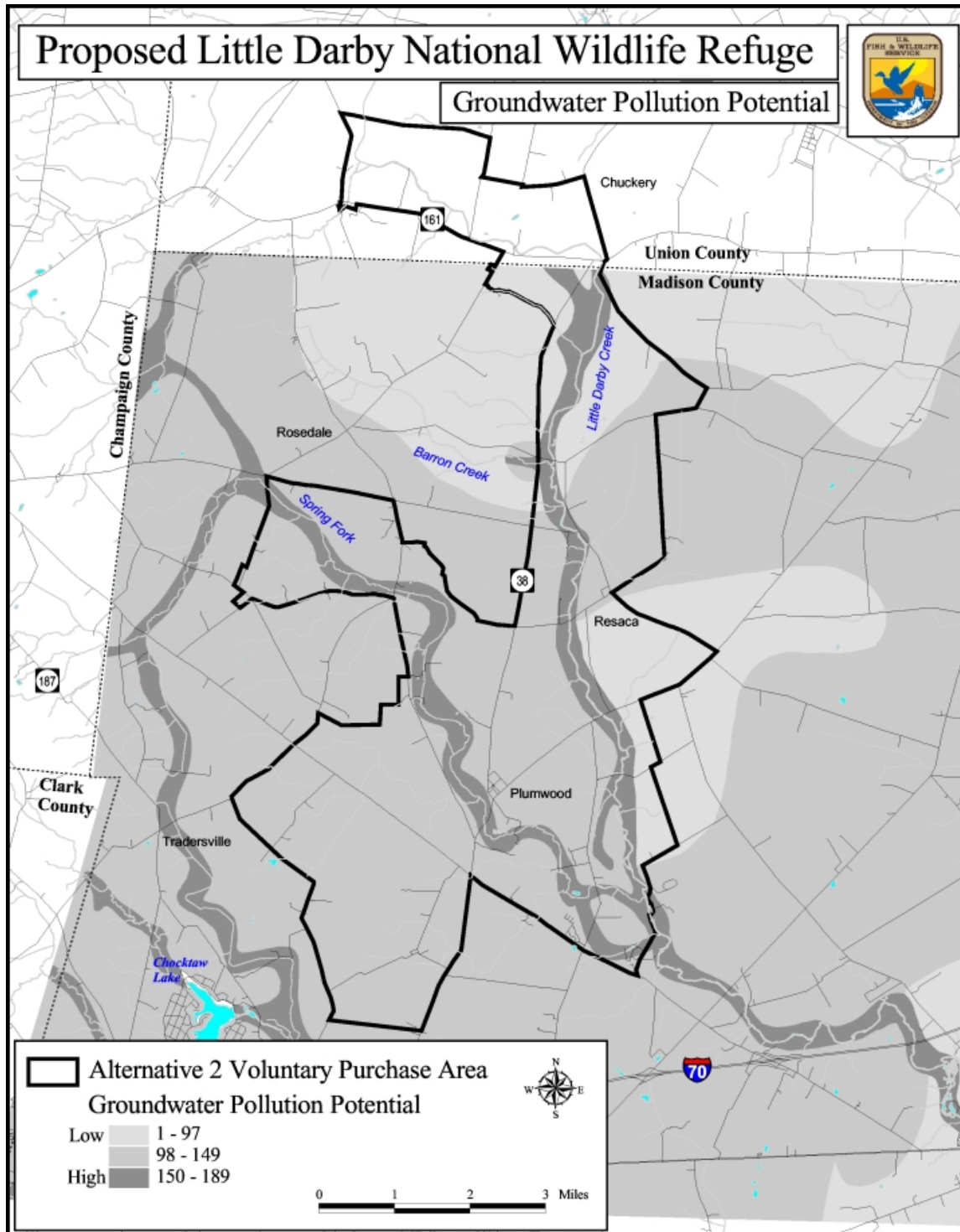
* The range of lot sizes is not known

nd No data to date

- Traffic volumes have increased significantly on Madison County roads over the past decade (the number of Madison County residents working outside of the County has increased significantly over the past 30 years; 22 percent fewer people work in the County and 20 percent more people commute to Franklin County) (U.S. Bureau of Economic Analysis, 1995).

The 1994 *Madison County Land Use Plan* also identifies residential development as being predominantly suitable for areas along or in close proximity to stream corridors. The Plan states: “Suitable areas like prime areas are located near the streams and rivers, but comprise a much larger area.” Even if this was not a direction of the County’s plan, it is unlikely that this could be avoided without legislative authority from a higher political subdivision. Recently, Madison County adopted a *Farmland Preservation Plan* that reformulated the comprehensive land use plan and relocated much of the planned residential

Figure 3: Groundwater Pollution Potential*



* Data not available for Union County

development. Rezoning to achieve the objectives of the new plan has not yet been initiated. This is discussed in Chapter 4 of this Draft Environmental Impact Statement.

In its Ecological Risk Assessment Case Study, the United States Environmental Protection Agency states:

Diversity of fish and mollusks has declined in the watershed. Species counts have declined in the most recent surveys for fish and mollusks...Several stressors associated with urban and suburban land development, as well as with agriculture, affect the Big Darby (specifically) and its biota. Degradation of tributary streams has been noted by OEPA and residents in several places...The Ohio 1990 Nonpoint Source Survey listed many stream reaches in the watershed as being impacted by crop production, pasture, urban runoff and construction (Cormier, 1998).

The latter reference to construction may also be reflected in changes to the agriculture economy. This condition is also reflected in Madison County, where agriculture as a percentage of gross economic output has declined from 29 percent in 1979 to approximately 7 percent in 1996 (Kraybill, 1998). However, this has not negatively affected the economy as a whole since this decline has been replaced throughout other sectors of the economy.

1.4.2.1 Contaminants and Hazardous Waste

Only a cursory survey of contaminants and hazardous waste has been conducted to date. There are no known dump sites in the study area, although one was proposed within the project area during the past decade. Modern farming practices in the watershed include the usual approved herbicide/insecticide applications. A detailed survey would be completed prior to any acquisition.

1.4.3 Agriculture

Agriculture has been the predominant land use in the watershed for approximately 120-150 years. Farming practices employed more than 100 years ago are much different than they are today. Overall biodiversity in the watershed was likely greater 100 years ago. Clearly, the knowledge base of conservation and agricultural land management practices has expanded over the past century. The continued, basic presence of agriculture has played a passive, generally positive role in helping to maintain the current health of the watershed, however cumulative sediment loading and pollutants from all sources threaten the health of the watershed as never before.

The Darby Creek Watershed aquatic and related terrestrial ecosystem embraces a wide array of state-listed and Federal-listed threatened and endangered species. Generally, the richness of the aquatic biota in the project area and watershed is significant. Furthermore, it is reasonable to assume that many of the state-listed and Federal-listed threatened and endangered species in the Little Darby and Big Darby creeks were not imperiled 100 years ago to the extent that they are today. Today, many of these species are influenced predominantly by agricultural land uses throughout their range. Other declining species depend on habitats that also have been influenced by agriculture. Agriculture, however, has not always influenced fish and wildlife populations as intensively as it does today.

The landscape appearance has changed gradually as settlement and agriculture has expanded. Natural history accounts attributed to Atwater, Brown and Morgan (Anderson, 1991) describe a landscape that was not wholly converted to agriculture as late as the middle to late 1800s. The presence of elk was reported as late as 1838. Much of the project area was wet and remained undrained through the early 1900s. In essence, the complete conversion of wetlands and prairies to agriculture was a moderately slow process occurring through the nineteenth century and the first half of the twentieth century.

Other factors that likely maintained the health of the project area and watershed in the first half of the twentieth century included:

- More pasture and hayland existed.
- Farms were smaller.
- Riparian habitat was more intact and less impaired.
- Woody shrub and herbaceous fence rows existed.
- More palustrine and riverine wetlands existed.



The advent of Federal protection and management-oriented agriculture and conservation institutions in the 1930s, such as the Soil Conservation Service (now the Natural Resources Conservation Service), U.S. Fish and Wildlife Service, Bureau of Land Management, etc., resulted in a divergence of conservation philosophies and law, one for agriculture and another for Federal trust fish and wildlife, and natural resources. Prior to 1934, the U.S. Fish and Wildlife Service was identified as the Bureau of Biological Survey within the U.S. Department of Agriculture. Many of the original fish and wildlife surveys were part of the Federal agriculture mission since these resources were legally held as a publicly owned product of the land. They remain so today.

After 1945, several institutional changes occurred that further profoundly affected agricultural land management practices in the watershed. Some examples are the evolution of the following:

- World markets for agricultural products and food processing technology.
- Federal and state laws and financial assistance programs to expand and improve productivity, for example, through drainage and improved seed / yields.
- Incentives in the form of commodity price supports and for selected cultural practices.
- Improved equipment and “clean” farming methods relying upon chemicals and inorganic fertilizers.
- Population growth and shifts.

Because of the hydric character of much of the project area and watershed soils, drainage was an essential requirement throughout the watershed before any large scale, intensive agricultural production could occur. Subsequently, the first county ditch law in Ohio was enacted around 1850. It was first amended in 1957 and again in 1981 and 1983. This was augmented by the original Conservancy District Law enacted in 1914, which was later broadened to authorize drainage

improvements. This has been used in conjunction with the Federal Watershed Protection and Flood Prevention Act, 1970. Soil and Water Conservation Districts only became able to legally address the disposal of water in 1969. (Ohio Drainage Laws, Bull, 822).

Today, production agriculture has evolved to become the predominant matrix land cover in the project area and the watershed, and it contributes substantially to the economy. It has not developed, however, without its attendant share of conservation deficiencies and impacts upon the terrestrial and aquatic environment. Despite the myriad of Federal and state incentive/subsidy and cost-share assistance conservation programs that have been initiated in the last 50 years, it has been difficult to promote long-term conservation practices given the economics of crop and livestock production. As recently as 1990, the Darby Creek Watershed, which includes the project area, had the highest problem rating of all watersheds in Ohio in terms of cropland erosion. The watershed ranked fourth based on the number of acres of cropland that were eroding at a rate faster than they could be restored, and it ranked first in the number of cropland acres eroding faster than twice the acceptable rate (Palone, 1990).

Agriculture continues to contribute to the degradation of the aquatic system through inadequate landscape-wide land and livestock management practices. As a land use, however, it can play an important role in stabilizing the biological integrity of the aquatic system. The likely reason for this dichotomy is that farm conservation programs have been cyclical in nature. Farm conservation programs have recurred in response to public concern and they have been subsidized by short-term Federal and state incentive programs. Consequently, they offer some measure of success in the short-term but not the long-term without the continuance of subsidized conservation practices. As commercial and residential development options become more enticing to landowners, those public conservation investments will likely be lost forever. Recently, a 3-year study in the watershed concluded that the education-information-subsidy approach used to encourage people to adopt conservation production systems has not been very successful. The study found that although changes have occurred in the use of farm production practices, many have not been desirable for soil and water conservation, especially on a landscape scale (Napier and Johnson, 1998). This is reason for even greater concern.

The success of subsidized conservation practices in the long-term is compromised by the limited duration of the financial incentive, annual market conditions, and a tendency to not employ a practice if cost reimbursement is perceived to be inadequate. Nonetheless, in comparison, residential and commercial land uses, even with rigid best management practices (BMP), do not have the flexibility to potentially buffer their impact as much as agriculture, as long as agriculture is conservation-based. The Nature Conservancy has recognized this deficiency and has renewed its emphasis on permanent conservation programs. The Hydrologic Unit Plan prepared by the U.S. Department of Agriculture (USDA) for the Darby Creek Watershed shared this perception as well when it noted that "Many farmers (in the watershed) own reduced tillage and planting equipment, but operators are, in general, reluctant to enter into a continuous reduced or no-till system without incentives and ongoing technical advice."

The USDA's recently completed Hydrologic Unit Area Initiative is a good example of an incentive program with positive, limited results that are potentially temporary. Gross expenditures by the USDA over the 8-year life of the

Hydrologic Unit Area is summarized in Table 2 of Appendix B. Table 2 also illustrates the accomplishments of the Hydrologic Unit Area for the entire watershed, including the project area, as reported by the Natural Resources Conservation Service, or NRCS (USDA, NRCS, 1997). Aside from the fact that the listed accomplishments are proportionately limited compared to recommendations for the entire watershed, their cost share maintenance periods have brief life spans (if an operator is compelled to abandon them at the end of the period).

For example, the Hydrologic Unit Area funded 174 acres of filter strips for the period of 1991-1998 with required maintenance of 3-5 years. In contrast, the initial Hydrologic Unit Area Plan recommended the establishment and enhancement of vegetative buffers (trees) for 66.9 miles of stream, or 1,391 acres, throughout the watershed. An additional 30.9 miles of stream, or 381 acres, was recommended for vegetative buffer enhancement by the same plan (Palone, 1990 and USDA, NRCS, 1991). On an acreage basis, the Hydrologic Unit Area filter strip accomplishment accounts for 10 percent of the overall plan recommendation. Overall, it accounts for 3 percent of the total stream length as related to a strip 80 feet wide on both sides of all drainageways in the watershed. In addition, although the pasture and hayland accomplishment lists over 5,000 acres, the current enrollment in the project area for CRP in Madison and Union counties is only 600 and 35 acres respectively. Conservation Reserve Program acreage totals approximately 3,800 acres in the entire Darby Creek Watershed. Current Wetland Reserve Program permanent easements in the project area for Madison and Union counties account for 287 and 177 acres respectively (USDA, NRCS, 1999). As of the beginning of 2000, NRCS has been stymied in trying to enroll participants in these programs throughout the watershed but especially in the project area.

Figures 1-10 in Appendix B illustrate the USDA's Farm Services Agency (FSA) reported accomplishments under the Agriculture Conservation Program (ACP) for the Hydrologic Unit Area initiative. These are not independent of the accomplishments reported in Table 2, Appendix B, but only a different account of accomplishments for many of the same practices using the same funds. Upon review, however, it appears that other grants were used primarily for filter strip and tree planting practices.

Generally, there is no consistency in the accomplishments reported between the two agencies. For example, FSA accomplishments reported for no-till systems depict a difference of over 15,000 acres less than that reported by NRCS for the same period. It is possible, however, that those accomplishments were voluntary and not cost-shared, or cost-shared through a different program. This could not be ascertained. Accomplishments in the practice categories of "vegetative cover establishment" and "improvement" illustrate similar differences. In addition, FSA District Boards have implemented policies granting authority to some producers to mow lands enrolled in the CRP. This has not been assessed for this project.

Federal and state agricultural conservation policies directed at private land have been variable over the past 50 years. This has led to voluntary conservation practices of a temporal nature in terms of long-term application and accounting. This is the dilemma confronting many watersheds, as well as the Little Darby Creek and the Big Darby Creek, where water quality is at stake. Also, OEPA has noted that the major causes of stream impairment today are agriculture, construction and development activities (OEPA, 1998).

While both agricultural and construction impairment are mostly a function of adequate local and state land use controls, Federal policy and programs have played the major role in farm land conservation practice application. The major differences between the Darby Creek Watershed, including the project area, and the majority of the rest of the state are the numerous state-listed and Federal-listed threatened and endangered species; biodiversity; natural history; and proximity to a rapidly growing metropolitan area. Overall, agriculture will remain one of the best alternatives to protecting water quality when production and non-production conservation practices can be utilized in a balanced, long-term approach. However, these opportunities are becoming more compromised and difficult to achieve with short-term investments of public funds.

1.5 Project Inception

A variety of events over the past 15 years has contributed to why and how the Little Darby National Wildlife Refuge is being proposed today.

In 1986, the United States and Canada signed the North American Waterfowl Management Plan (NAWMP) in an effort to address the declining status of North American waterfowl populations. The purpose of the NAWMP is to restore a continental breeding population of 62 million ducks, including 8.7 million mallards, 6.3 million pintails, and a fall flight of 100 million ducks during years of average environmental conditions. Of late, the NAWMP has added objectives and activities for nongame birds. While the proposed refuge is not envisioned as a major waterfowl refuge, a large complex of wetlands and grasslands will certainly benefit a variety of nongame birds and waterfowl during migration and breeding. Such large habitat complexes in Ohio are rare.

The U.S. Congress authorized the Emergency Wetlands Resources Act in 1986 to protect critical wetlands and promote wetland conservation. One of the requirements of the Act was the preparation of a national plan to identify high priority wetlands for protection. In response to the Act, the Department of the Interior developed the National Wetlands Priority Conservation Plan 1989.

The National Wetlands Priority Conservation Plan in turn led to the development of the Regional Wetlands Concept Plan for the Great Lakes-Big Rivers Region (Illinois, Indiana, Minnesota, Iowa, Missouri, Wisconsin, Michigan, and Ohio) in 1990. The purpose of the plan was to identify wetlands that warranted protection in conformance with the Emergency Wetlands Resources Act of 1986. Restoration and protection of palustrine emergent and palustrine-forested wetland habitat within the Darby Creek Watershed was one of the recommendations in the Regional Wetland Concept Plan for the State of Ohio.

The Ohio Department of Natural Resources designated sections of the Big Darby Creek and the Little Darby Creek as State Scenic Rivers in 1984. The National Park Service designated portions of the same creeks as National Scenic Rivers in 1994.

In 1991, The Nature Conservancy identified the Big Darby Creek and the Little Darby Creek as one of the "Last Great Places" in the Western Hemisphere. Numbers are one way to illustrate how important the project area is in relation to the entire watershed. In particular, while the project area encompasses only 14-15 percent of the entire watershed, it includes almost 50 percent of all stream

miles and important aquatic habitat that is in the watershed. Subsequently, any agriculture or non-agriculture land use impacts in this area would potentially be magnified throughout the watershed. The following numbers for both the watershed and the proposed refuge are approximate.

Watershed

Area:	358,400 acres/560 square miles
Total Stream/Drainages:	333 miles
Shoreline:	666 miles

Proposed Refuge Project Area

Area:	49,200 acres/78 square miles
Study Area-Total Stream/ Drainages:	150 miles
Shoreline:	300 miles

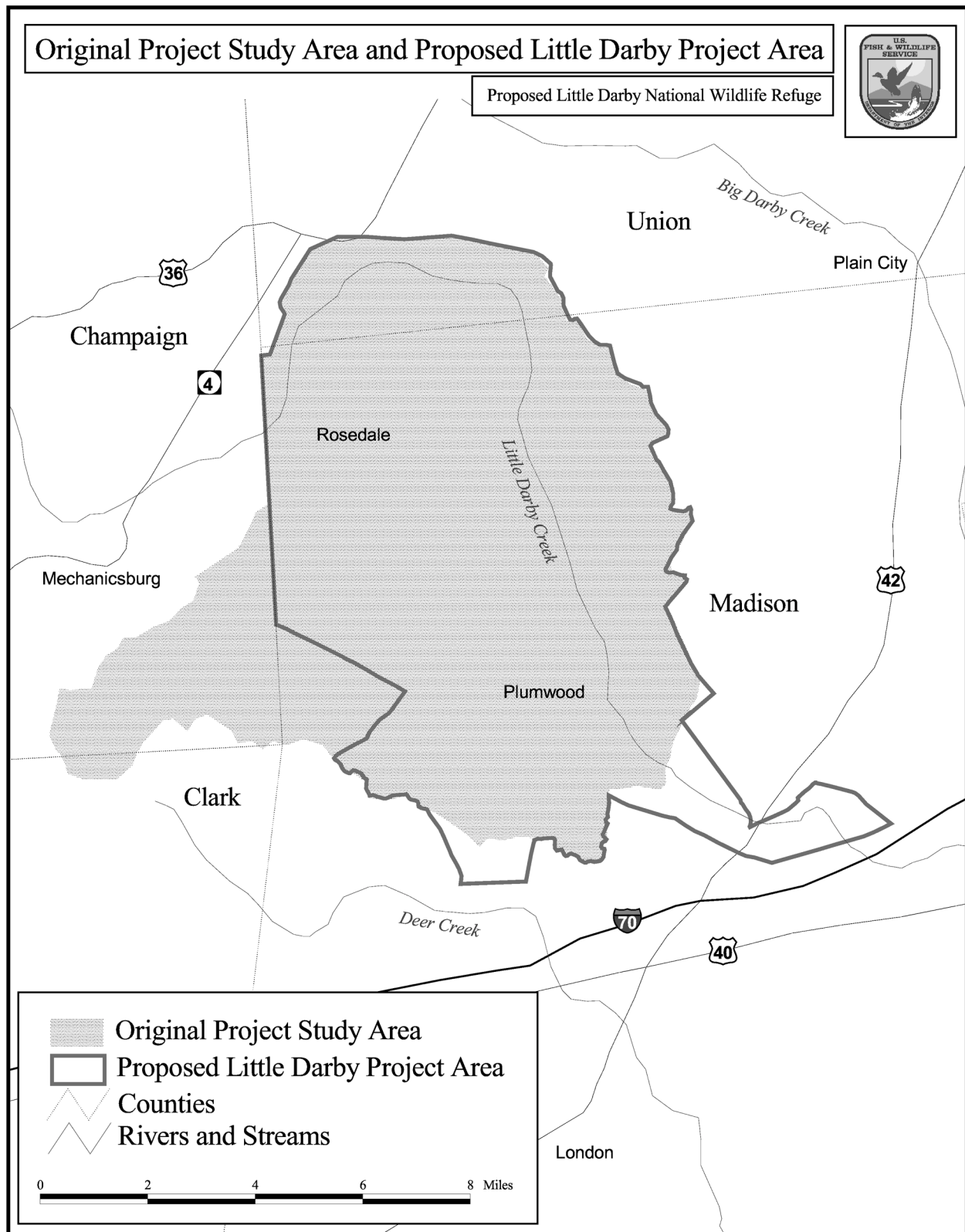
Beginning in early 1997, the Service initiated discussions with The Nature Conservancy-Ohio Chapter, Franklin County Metropolitan Park District, and the Natural Resources Conservation Service, USDA, to evaluate the feasibility of a consolidated Ecosystem Restoration and Protection (ECORP) partnership project in the Darby Creek Watershed. Service interests were based on the significant biological diversity of the in-stream aquatic system, the presence of federally-listed threatened and endangered species, opportunities for grassland and wetland restoration that would support Service migratory bird objectives, and the relative threat to the aquatic resources. Equally important, the partners agreed that it was critical to share responsibility for protecting and restoring the watershed as a whole to the extent that each could accomplish this task. Collectively, the partnership recognized that the watershed and its related parts were not uniformly in the same environmental condition. Subsequently, each agency and organization committed to focus upon different parts of the watershed through the use of their programs and authorities, as well as to invite the participation of other agencies.

In response to these discussions with its partners, the Service began an inquiry into the interest and need for a proposed national wildlife refuge in late 1997 and early 1998. The purpose of the proposed refuge was to protect and restore migratory birds and threatened and endangered species (commonly referred to as "Federal trust resources") and partially accomplish the mutual and similar biodiversity objectives of the partners by defining a study area for a national wildlife refuge in the upper Little Darby Creek watershed (Figure 4). This was followed by the preparation and approval of a Preliminary Project Proposal for what was at that time called Darby Prairie National Wildlife Refuge.

Since then, the process has included a review by the Service of opportunities and issues related to fish and wildlife resource management in the watershed, as well as an assessment of roles the Service might take in achieving its mission, the mission of the National Wildlife Refuge System, and the goals established for the region. The refuge was proposed in response to the declining or threatened status of numerous Federal trust resources in the watershed and because studies indicate that habitat loss, land use conversions, and degradation have been causal factors in those declines and are likely to continue.

The process began with the preparation of a Draft Environmental Assessment. The document was released in November 1999 with a 60-day comment period. In response to public and governmental interest in the project, the Service decided to prepare an Environmental Impact Statement.

Figure 4: Original Study Area and Proposed Study Area



1.6 Proposed Action

The Service's proposed action in this Environmental Impact Statement is to develop the Little Darby National Wildlife Refuge to restore, preserve, enhance and protect the biodiversity of the upper Little Darby Creek watershed and to benefit the Darby Creek watershed as a whole. This would be accomplished by focusing on grassland, wetland, and in-stream aquatic dependent populations of fish and wildlife trust resources. Using the authority of the Fish and Wildlife Act of 1956, the basic purpose of the refuge would be "for the development, advancement, management, conservation and protection of fish and wildlife resources" (Fish and Wildlife Act of 1956). Specific goals for the refuge would be:

- Long-term preservation and restoration of Federal threatened and endangered species in the Little Darby Creek watershed.
- Long-term preservation and restoration of migratory birds and their habitat in Little Darby Creek watershed.
- Provide opportunities for wildlife-dependent public uses consistent with the refuge's natural resource preservation and restoration goals.
- Ensure that the overall watershed biodiversity and Federal wildlife trust resources are protected and enhanced, while respecting agriculture as an existing and desirable land use that complements and enhances habitat restoration and long-term preservation in the the core refuge Voluntary Purchase Area.

1.7 Scoping and Public Involvement

The Service initially proposed to complete an Environmental Assessment for the proposed Little Darby National Wildlife Refuge. In response to interest in this project, however, the Service decided to discontinue the Environmental Assessment process and complete an Environmental Impact Statement.

Because information collected as part of the Environmental Assessment is also part of this Draft Environmental Impact Statement, this section describes the scoping process for both the Environmental Assessment and the Environmental Impact Statement.

Scoping is the process of identifying issues and opportunities perceived by individuals who have an interest in a proposed project. The issues and opportunities identified for the proposed Little Darby National Wildlife Refuge during the Environmental Assessment and Environmental Impact Statement scoping, as well as during the review of the Draft Environmental Assessment, form the basis for the topics addressed in this Draft Environmental Impact Statement.

1.7.1 Scoping for the Environmental Impact Statement

A Notice of Intent to prepare an Environmental Impact Statement was published in the Federal Register on June 9, 2000.

Two scoping meetings were conducted in developing the Environmental Impact Statement to assess the impacts of establishing a national wildlife refuge along the Little Darby Creek in Madison and Union counties, Ohio. News releases announcing the open house meetings were distributed to media and an announcement of the meetings was also mailed to the approximately 2,000 people who have requested to be on the Service's mailing list for this project.

One meeting took place on Monday, June 19, 2000, at the Northwest Center in Plain City, Ohio. The second meeting took place at the Della Selsor Building on the Madison County Fairgrounds in London, Ohio. Both meetings ran from 6 p.m. to 9 p.m., however on both days attendees arrived shortly after 5 p.m. and departed after 9 p.m. Maps of the project area were displayed at several locations in the meeting rooms and comment sheets were available on both evenings. Nine Service employees were on hand at both scoping meetings to talk to people in an open house format and to lead the small-group issue identification sessions.

The intent of the scoping meetings was to elicit specific issues and opportunities that people believed should be considered in the Environmental Impact Statement. To accomplish this, the Service used a format that included an open house and small-group sessions. The open house format gave people the opportunity to discuss issues and opportunities with Service staff one-on-one.

Three small-group discussions focused on issues that had been identified as key issues during the Environmental Assessment process, namely physical environment and wildlife; private lands/landowner interests; and economics. People participating in the discussions were asked to reflect on the project and write the issues important to them on cards distributed by Service staff. Service staff asked participants to identify what they saw as primary issues, and these cards were collected and read to the entire group. All of the cards were collected.

Each small-group session ran three times each night, adding up to 18 group discussions being conducted over the course of the two meetings. Individuals were asked to sign up ahead of time to participate in the small-group discussions. Participation ranged from fewer than 10 people in a group to the full 20 people allowed per group. The Service estimates that total participation in all groups was approximately 135 on June 19 and approximately 100 on June 20.

Some of the people attending the meeting were critical of the small-group discussions because staff did not immediately address each issue identified. The purpose of scoping is to gather as much input from the community as possible, not necessarily to respond to that input immediately. A total of 502 issues were identified in the small-group discussions. We believe that this was an effective way to identify issues.

In addition to the issues stated on cards, another 64 comment sheets were completed by people attending the June 2000 open houses. Following the open houses, another 62 comments were received prior to the completion of this Draft Environmental Impact Statement. All of the comments received during the Draft Environmental Impact Statement scoping process can be viewed on the Service web site (<http://www.fws.gov/r3pao/planning.htm>).

People were also critical of the acoustics at the two meeting sites. With more than 300 people estimated to have attended the June 19 meeting and more than 200 attending the June 20 meeting, the Service agrees that it was hard to hear in the small-group settings. To ensure that all attendees had an opportunity to see all issues raised, issue statements were taped to flip charts and posted on walls in addition to being read.

Individuals protesting the refuge proposal organized a tractor caravan with signs opposing the refuge and many wore anti-refuge stickers or carried signs at each of the two meeting facilities. On June 20, the Libertarian Party had an airplane fly over the meeting site pulling an anti-refuge banner.

Supporters of the refuge proposal attended the meetings on both days as well. They were identified by their pro-refuge stickers and signs, as well as identifying themselves as pro-refuge in conversations with Service staff. Both meetings had a good mix of supporters of the refuge concept and opponents of the concept, although opponents appeared to outnumbered supporters both days.

Small-group issue identification session cards were reviewed and categorized by Service personnel following the two scoping meetings. All of the scoping comments received are available on our Web site (<http://www.fws.gov/r3pao/planning/index.htm>) and in libraries listed in the executive summary.

The following list summarizes the issues and opportunities identified both in the Environmental Impact Statement scoping process and in the Environmental Assessment scoping process:

Biological Environment:

- Protect threatened and endangered species
- Enhance resident wildlife and fish species
- Restore biodiversity
- Risk of wildlife disease impacting people

Physical Environment:

- Preserve or restore wetlands
- Effect on drainage
- Improve groundwater, air, and other environmental conditions
- What effect would a refuge have on surface hydrology?
- How would a refuge impact leased land in the area?
- Farmland needs to be protected
- What impact would a refuge have on development?
- Would crop depredation become a problem?
- Impact of fire on private land and the environment

Socioeconomic Environment:

- What effect would a refuge have on local taxes?
- How would a refuge impact economics?
- Would establishment of a refuge restrict private property rights, local authority, or interfere with agriculture operations?
- What public uses would be allowed on a refuge?
- Would relocation benefits be provided?
- Would land be condemned?
- What are the impacts on cultural resources?
- What is the impact on school district funding?
- Describe real estate methods and procedures
- EIS process
- Alternatives to the refuge
- Refuge operations and funding
- Amount of public land

1.7.2 Scoping for the Environmental Assessment

The Service's initial concept of a new national wildlife refuge located in northwestern Madison, southern Union, southeastern Champaign, and northeastern Clark counties was announced publicly via a Columbus Dispatch news article in

November 1997. Prior to the media release, the Service and its partners held informational briefings on the project for congressional members and staff, county officials, and several others at their request.

Since the project began, and including comment received on the Draft Environmental Assessment, approximately 70 public, private and group meetings and direct media programs were organized and attended in association with the Environmental Assessment. The number of individual or one-on-one discussions has ranged from 900-1,000, and between 1,000 and 1,500 telephone calls have been fielded or initiated. The Service also provided information via an Internet Web site and sought comments through an on-line comment form. Approximately 1,600 comments have been received in writing or by electronic mail.

Numerous Federal, state, local, and private entities were involved in the scoping process for the Draft Environmental Assessment. These included Ohio's Congressional Delegations, the U.S. Department of Agriculture, U.S. Department of Interior, Ohio Department of Natural Resources, representatives from local governments, representatives of national, state, and local conservation organizations, Farm Bureau, landowners, and other interested groups and citizens. The Service met frequently with many of the aforementioned entities. As part of the Environmental Assessment process, two scoping meetings were held in January 1999 to share information and solicit comments.

Comments from the scoping process covered a wide range of potential opportunities and concerns. Some comments encouraged the establishment of a new national wildlife refuge, while others cited potential or perceived conflicts. To address these opportunities and concerns, the Service developed two informational fact sheets, developed and distributed an opinion survey, held a number of informational meetings, and issued news releases.

Several newsletters were prepared as part of the Environmental Assessment process. One general mailing clarifying planning and proposal facts was sent to all known residents in the refuge study area on March 4, 1999. In June 1999, a newsletter was mailed to landowners within the project area and others on the project mailing list. The newsletter included an update on the status of the study, answers to common questions about refuge proposals, and information on the importance of preserving the Darby complex. Another newsletter was mailed to the same group in August 1999 introducing the concepts that were being studied in the Draft Environmental Assessment. Maps showing the three action alternatives were included, as well as an announcement that the project's name had been changed from "Darby Prairie" to "Little Darby." In November 1999, a summary of the Draft Environmental Assessment was mailed to all individuals, businesses, organizations and agencies on the project mailing list.

Prior to preparation of the Draft Environmental Assessment, 674 opinion survey forms were received from interested citizens located mostly within Ohio, which is approximately 52 percent of the total number of forms that were distributed. Overall, the survey had mixed results, probably as a result of mixing issues with methods. In addition to the opinion survey forms, the Service also received 52 individual letters, form letters, form post cards and e-mail also expressing opinions for and against the proposed refuge.

As part of the Environmental Assessment process, a Technical (Advisory) Work Panel composed of between 30 and 32 people representing scientific, political,

agricultural and private interests was organized in July 1998. The Service had no special requirement to formulate this panel, but perceived a need to hear from a broad group of professionals. Its purpose was to:

- Focus input from principal private, public, and institutional stakeholders that have an interest in the proposal.
- Provide constructive advice and suggestions that would enable the Service to build effective and reasonable alternatives.
- Improve communication and understanding among the various entities that have an interest in the proposal.

The initial meeting on August 6, 1998, was to discuss the value and importance of the watershed, and obtain feedback to significant issues in the project area or watershed.

Panel members reviewed and commented on the draft goals and objectives for the proposed refuge in a meeting held on December 15, 1998. A final meeting was held on August 4, 1999, to give members an opportunity to review draft concept boundaries that would be considered in the Draft Environmental Assessment.

Meeting minutes from all three Technical Work Panel meetings relative to the Draft Environmental Assessment are listed in Appendix C.

The Service's proposal for the refuge evolved over time through work in the watershed and discussions with other entities interested in resource preservation and restoration. The Ecosystem Restoration and Protection (ECORP) Partnership project incorporated the "concept" of a proposed national wildlife refuge. Because of this, many of the proposed refuge issues normally presented and discussed in the planning stage were also discussed in a number of forums organized by private organizations and state agencies prior to formal Service initiation of the planning process. The Preliminary Project Proposal (PPP), which is the Service's internal evaluation process authorizing initiation of planning for a new refuge and preparation of an Environmental Assessment, was approved on April 30, 1998. A number of meetings were held to discuss the refuge proposal and ECORP Partnership in "concept" before and after the approval of the Preliminary Project Proposal by the Service (Appendix D). Operation Future Association pulled out of discussions on the refuge proposal without explanation and relieved the Ohio State University Extension agent of his duties with their group in January 1999.

During the course of the Environmental Assessment process, political subdivisions and organizations took the following positions:

Groups Opposing the Refuge Proposal

Champaign County Commissioners
Champaign Soil and Water Conservation District
Citizens Against the Refuge Proposal
Citizens for Constitutional Property Rights, Inc.
Coalition of Concerned Citizens
Collinsville Grange No. 2264
Jonathan Alder Schools
Knox County Pomona Grange
Lake Grange No. 1744

Liberty Grange No. 1776
Logan-Union-Champaign Regional Planning Commission
Madison County Commissioners
Madison County Farm Bureau
Ohio Farm Bureau Federation
Ohio State Grange
Operation Future Association
People for the USA
St. Paul Lutheran Church and School, Chuckery
Stewards of the Darby
Stillwater Grange No. 2670
Trustees of Darby Township, Union County
Union County Farm Bureau
Union County Commissioners
Union Grange No. 869
Union Soil and Water Conservation District

Groups Supporting the Refuge Proposal

Blackbrook Audubon Society
Black River Audubon Society
Buckeye Forest Council
Central Ohio Green Education Fund
Citizens Protecting Ohio
Citizens Speak Out
City of Columbus, Ohio
City of Dublin, Ohio
City of Gahanna, Ohio
City of Upper Arlington, Ohio
Columbus Audubon Society
Darby Creek Association, Inc.
Ducks Unlimited-Ohio Chapter
Erie County Metropolitan Park District
Franklin County Metropolitan Park District
Friends of Alum Creek and Tributaries
Friends of Blacklick Creek
Friends of the Lower Olentangy Watershed
Hocking River Commission
Kokosing Scenic River Association
Loveland Greenbelt Community Council
Medina Summit Land Conservancy
National Audubon Society, Ohio
Northside Greenspace Inc.
Ohio Environmental Council
Ohio Lepidopterists
Ohio Parks and Recreation Association
Olentangy River Valley Association
Pheasants Forever, Ohio Council
Protect Biodiversity in Public Forests - Network
Rural Action
Sandusky Scenic River Advisory Council
Sierra Club, Central Ohio Group
Sierra Club, Ohio Chapter
Sugar Creek Protection Society

The Nature Conservancy, Ohio Chapter
The Ohio Smallmouth Alliance
Tinkers Creek Land Conservancy
Impure Prairie League

Although it was not specific to the scoping process of this proposal, The Nature Conservancy contracted for a statistical analysis of public attitudes in the watershed toward Darby Creek and development in November of 1997. The results of this survey are generally consistent with the direction of this proposal (The Kitchens Group, 1997). The following general conclusions were noted:

- Ninety percent of the voters surveyed believe that the Darby is important to preserve.
- Eighty-five percent of the voters surveyed feel that Darby Creek needs to be preserved.
- Eighty percent believe that urban growth threatens their quality of life.
- Seventy-eight percent oppose any additional residential development.
- Ninety percent believe that farm land should be protected from further development.

A statistically valid survey of opinions was not conducted by any group exclusively within Madison and Union counties. There was support for the proposal from residents in these counties, and there was also organized and visible opposition to the proposed refuge. Signs opposing the proposed refuge were common throughout the proposed area and there were organized demonstrations against the project at Service-sponsored open house events.

The Nature Conservancy independently contracted with the Tarrance Group to conduct a statewide and regional poll of residents in Ohio about the Service's proposal prior to the release of the Draft Environmental Assessment. The poll was released during the Environmental Assessment comment period (see comment number 796 in Appendix M). That poll showed 70 percent or more of respondents both statewide and specifically within the six-county Darby Creek Watershed supported the refuge proposal.

Initial public scoping open houses for the Environmental Assessment were held on January 28, 1999, in Rosedale, Ohio, and on January 29, 1999, in Dublin, Ohio. Approximately 140 people attended the Rosedale open house and 90 people attended the Dublin open house.

The Draft Environmental Assessment was released for public review on November 29, 1999. The Service received approximately 1,600 individual letters, form letters, form post cards, and electronic messages commenting on the draft document or stating an opinion about the proposal.

Three open houses were held in December 1999 following release of the draft Environmental Assessment. Of the 12 hours of open house conducted in the three sessions, approximately six hours were devoted to question and answer forums in front of all attendees. An estimated 650 people attended the three open houses in December.

The three meetings were held in London, Ohio, Plain City, Ohio, and Marysville, Ohio, on December 7, 9, and 16, respectively. Initially, a 30-day comment period

was announced. Upon public request, an additional 30 days was approved by the Regional Director.

Service personnel attended additional meetings with citizens, organizations, agency representatives, school district officials, regional planning authorities, and elected state representatives following the release of the draft Environmental Assessment. Meetings with the public have continued beyond the comment period, which ended on January 29, 2000. A full summary of meetings/discussions is listed in Appendix D.

After the Service's decision to discontinue the Environmental Assessment process and proceed with an Environmental Impact Statement, all of the comments received on the Draft Environmental Assessment were made available to libraries within the project area. Comments were also posted on the Region 3 web site (<http://www.fws.gov/r3pao/planning/index.htm>)

1.8 Policy, Authority and Legal Compliance

This Environmental Impact Statement and planning process is in compliance with the National Environmental Policy Act of 1969 (NEPA), which requires Federal agencies to consider all environmental factors related to their proposed actions. An Environmental Impact Statement is an explanation/declaration/evaluation of the consequences, both favorable and unfavorable, of a particular action that is contemplated by a Federal agency. This includes effects on the natural, economic, social and cultural resources of the area.

Authority for funding and acquiring lands for national wildlife refuges is provided by laws that have been passed by Congress in accordance with the provisions of the United State Constitution.

The United States Constitution provides that:

“All legislative powers herein granted shall be vested in a Congress of the United States...” (Article 1, Section 1, Clause 1)

And that Congress shall have power:

“To make all laws which shall be necessary and proper for carrying into execution the foregoing powers, and all other powers vested by this Constitution in the Government of the United States, or any Department or Officer thereof.” (Article 1, Section 8, Clause 18)

One of the first related laws passed by Congress was in 1820 and it is cited in the U.S. Code (U41 USC 14). It states:

“No land shall be purchased on account of the United States except under a law authorizing such purchase.”

The Service would comply with the laws and regulations pertaining to land acquisition prior to, during and following implementation of the project. See Appendix J for a list of laws and orders that apply to the Service.

Regarding the Federal government's power of eminent domain, or condemnation, the Service has pledged verbally and in writing that lands within the Little Darby project would be acquired only from willing sellers.